

COMPLETE CLAIM SET

1. (Previously Presented) A method for recording data on an optical disc comprising the steps of:

detecting optimum writing power from a test area on the optical disc;

determining whether or not a current writing power is within a predetermined allowable range set with reference to the detected optimum writing power; and

performing a writing operation by increasing the writing power based on power update information when the current writing power is larger than an upper bound of the predetermined allowable range.

2. (Previously Presented) The method according to claim 1, wherein the determining step comprises the steps of comparing a current writing position with previously stored position information corresponding to the predetermined allowable range, and determining, based on the result of the comparison, whether or not the current writing power is within the predetermined allowable range set with reference to the detected optimum writing power.

3. (Original) The method according to claim 2, wherein the position information corresponding to the predetermined allowable range is detected based on a disc type or a writing speed associated with the optical disc.

4. (Original) The method according to claim 2, wherein the current writing position is detected from absolute time in pre-groove data detected from a wobble signal generated in association with the optical signal.

5. (Original) The method according to claim 1, wherein the predetermined allowable range of the writing power and/or the power update information is detected based on a disc type and a writing speed associated with the optical disc.

6. (Original) The method according to claim 1, wherein the power update information includes power information based on position information.

7. (Original) The method according to claim 2, wherein the power update information includes information about a variation in writing power at a predetermined writing interval.

8. (Previously Presented) The method according to claim 1, wherein the step of increasing the writing power based on the power update information is carried out when the writing operation is performed at a writing speed higher than an appropriate writing speed of the optical disc.

9. (Previously Presented) An apparatus for recording data on an optical disc, comprising:

a determining unit for determining, in a writing operation of the writing means, whether or not current writing power is within a predetermined allowable range set with reference to optimum writing power;

a controller for increasing the writing power based on power update information when the current writing power is larger than an upper bound of the predetermined allowable range; and

a writing unit for performing a writing operation with the controlled writing power to write input data to the disc using writing power.

10. (Original) The apparatus according to claim 9, further comprising:
means for detecting a current writing position from absolute time in pre-groove data detected from a wobble signal on the optical disc.

11. (Original) The apparatus according to claim 10, wherein the determining unit compares the current writing position with previously stored position information corresponding to the predetermined allowable range, and determines, based on the result of the comparison, whether or not the current writing power is within the predetermined allowable range set with reference to the optimum writing power.

12. (Original) The apparatus according to claim 9, wherein the previously stored position information of the predetermined allowable range and/or the power update information is detected based on a disc type and/or a writing speed.

13. (Original) The apparatus according to claim 9, wherein the power update information includes power information correspond to position information, respectively.

14. (Previously Presented) The apparatus according to claim 9, wherein the power update information includes information about a variation of increase in writing power at a predetermined writing interval.

15. (Previously Presented) The apparatus according to claim 9, wherein increase of the writing power based on the power update information by the controller is carried out when the writing operation is performed at a writing speed higher than an appropriate writing speed of the optical disc.

16. (Previously Presented) The method according to claim 1, further comprising performing the writing operation with the writing power controlled to maintain a reflection signal level corresponding to the detected optimum writing power when the current writing power is within the predetermined allowable range.

17. (Previously Presented) The apparatus according to claim 9, wherein the controller controls the writing power to maintain a reflection signal level corresponding to the optimum writing power when the current writing power is within the predetermined allowable range based on the result of the determining unit.